CENTERS FOR DISEASE CONTROL

December 18, 1987/Vol. 36/No. 49

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

801 HIV Infection in the United States
804 Adult T-Cell Leukemia/Lymphoma Associated With HTLV-I Infection — North Carolina
812 International Outbreak of Type E Botulism Associated With Ungutted, Salted Whitefish
814 Premature Mortality Due to Unintentional Injuries — United States, 1984

Human Immunodeficiency Virus Infection in the United States

The following report summarizes the review of current knowledge on human immunodeficiency virus (HIV) infection in the United States that was presented to the Domestic Policy Council. The review was conducted during the period September-November 1987, by CDC in conjunction with the National Institute on Drug Abuse of the Alcohol, Drug Abuse, and Mental Health Administration and the National Institutes of Health. Although the various studies reviewed differ in design and cannot be precisely compared, the review yielded a description of the approximate patterns and trends of HIV infection in this country.

Background

Over 46,000 cases of acquired immunodeficiency syndrome (AIDS), which is a result of HIV infection, have been reported to CDC since 1981. The mean interval between infection with HIV and the onset of AIDS exceeds 7 years. Thus, information on the number of currently infected individuals (prevalence) and the rate at which new HIV infections occur over time (incidence) is vital to monitoring the progression of the HIV epidemic.

Transmission of HIV infection can be slowed or halted by reducing or eliminating the behaviors that place individuals at risk for acquiring the infection. Better and more extensive information is essential for targeting and evaluating control and prevention efforts at local and state levels, for predicting future health-care needs, and for understanding where the HIV/AIDS epidemic is headed. Surveillance of the prevalence and incidence of HIV infection through continually monitoring sentinel populations, expanding focused seroprevalence studies, and developing models to help interpret the data remains a critical element of the nation's response to this major public health crisis.

HIV Infection in the United States

Infection Among Groups at Recognized Risk. Observed prevalence of infection remains highest in those groups that account for the vast majority of AIDS cases. In 50 studies throughout the country, seroprevalence among homosexual and bisexual men has ranged from under 10% to as high as 70%; however, most findings have been between 20% and 50%. In 88 studies of intravenous (IV) drug abusers, HIV antibody prevalence has ranged from 50% to 65% in the New York City vicinity and Puerto Rico to rates that, although varied, have been mostly below 5% in areas other than the East Coast.

HIV antibody prevalence among persons with coagulation disorders requiring clotting factor concentrates (hemophiliacs) has varied according to the type and

HIV – Continued

severity of the disorder. The overall prevalence among hemophilia A patients has been approximately 70%; for hemophilia B patients, it has been 35%. These rates appear uniform throughout the country and reflect the national distribution of clotting factor concentrates.

The prevalence of HIV infection among regular heterosexual partners of infected persons has ranged from under 10% to 60%. Among partners of those who are at risk but whose HIV status is unknown, the prevalence has generally been under 10%.

Infection Among Groups Within the General Population. In selected groups within the general population—blood donors, civilian applicants for military service, Job Corps entrants, sentinel hospital patients, and women seen in family planning and other women's health clinics—the prevalence of HIV infection has generally been a fraction of 1%. However, seroprevalence rates have varied considerably and have been found to be much higher among selected inner city populations.

Persons at increased risk for HIV infection are asked not to donate blood; therefore, the prevalence and incidence rates of donor groups underrepresent the actual rates in the population. The overall prevalence of HIV antibody among Red Cross blood donors who have not been previously tested has averaged 0.04%. Applicants for military service, who underrepresent persons in the principal risk groups for HIV infection, have had a crude HIV antibody prevalence of 0.15%, which, when adjusted to the age, sex, and racial composition of the 17- to 59-year age group of the U.S. population, is 0.14%. Job Corps entrants (disadvantaged youths 16 to 21 years of age) have had a prevalence of 0.33%. Patients without AIDS-like conditions who have been tested anonymously at four sentinel hospitals have had a prevalence of 0.32%; the sex- and age-adjusted prevalence for military applicants from the same cities has been 0.11%.

Childbearing women in Massachusetts who were tested anonymously through filter-paper blood specimens from their newborn infants had an HIV antibody prevalence of 0.21%. Female applicants for military service from the same state have had a prevalence rate of 0.13%. The findings from surveys in women's health clinics have ranged from 0 to as high as 2.60% positive.* The higher prevalences have occurred in areas where the incidence of AIDS is high among women.

HIV Antibody Prevalence by Geographic Location, Age, Sex, and Race or Ethnicity. The geographic distribution of HIV antibody prevalence among blood donors and applicants for military service and, to a limited extent, among homosexual men and IV drug abusers has been similar to the geographic distribution of AIDS cases (i.e., highest on the East Coast and West Coast and lowest in the northern Midwest and Mountain states). In addition, HIV antibody prevalence, like AIDS case incidence, has been greater in urban than in rural areas. Like AIDS cases, HIV infection among groups within the general population and among high-risk groups has been concentrated among young to early middle-aged adults and has consistently been more common among men and among blacks and Hispanics.

Heterosexuals. Information on the extent of HIV infection among persons who are exclusively heterosexual, do not use IV drugs, and have no known sexual exposure to persons at increased risk for HIV infection comes from two principal sources: 1) evaluation of the risk factors of seropositive blood donors and applicants for military service and 2) HIV surveys among heterosexuals attending sexually transmitted disease (STD) clinics.

*These surveys exclude pregnant drug users, whose prevalence reached nearly 30.0%.

HIV — Continued

Limited studies of the exposure risks of seropositive blood donors, military applicants, and active duty military personnel suggest that approximately 85% of such individuals have identifiable risks for HIV infection. If the risk factor data from these limited studies prove to be consistent in more extensive national studies, then HIV antibody prevalence levels in persons without acknowledged or recognized risks would be below 0.02% for military applicants and below 0.01% for blood donors. However, more extensive studies on risk factors are urgently needed, particularly in inner city areas where AIDS case surveillance data suggest that heterosexual HIV transmission occurs.

In limited studies in which the subgroup of heterosexuals at highest risk (those being treated for STD) have been rigorously interviewed and those who are seropositive have been reinterviewed, the prevalence of HIV infection has generally ranged from 0 to 1.20% for persons without specific, identified risk factors. By contrast, the prevalence of infection among homosexual men at the same clinics has ranged from 12% to over 50%.

HIV Infection Trends Over Time and the Incidence of New Infection. Much less information exists on the trends and incidence of HIV infection than on its prevalence, and such data are much more difficult to develop. In the two general population groups tested over time (applicants for military service and first-time blood donors) HIV antibody prevalence rates have remained stable for 2 years, although the prevalence among donors has fluctuated seasonally. Increased self-exclusion of persons who know that they either are at risk or are already infected may have contributed to this observed prevalence pattern. The apparent stability may reflect the competing effects of self-exclusion by infected persons and the continued occurrence of new HIV infections.

There is evidence that new infections continue to occur among blood donors, military personnel, and groups at increased risk. However, in some groups, the rate of new infection may have declined somewhat from the rates that prevailed in the early 1980s. This interpretation is supported by the following observations: 1) declines in incidence of new infections have been observed in eight cohorts of homosexual men (the current principal risk group); 2) the net seroprevalence among military applicants and donors no longer appears to be rising; and 3) serologic screening of blood products and heat treatment of clotting factor concentrates have significantly reduced new infection in transfusion recipients and hemophiliacs. However, insufficient trend and incidence data are available to evaluate recent patterns in IV drug abusers or heterosexually active persons or in local geographic areas such as the inner cities.

The HIV/AIDS epidemic is a composite of many individual, though overlapping, smaller epidemics, each with its own dynamics and time course. The incidence of new infection in certain subgroups may have declined somewhat; however, in the absence of specific information, incidence rates cannot be assumed to have declined in all subgroups or in all geographic areas. It is important that trends be monitored among the various groups at increased risk, with particular emphasis on the groups and settings in which the pattern of transmission may be changing (i.e., IV drug abusers and heterosexually active persons and in localized areas such as inner cities). Data are insufficient to determine precisely the overall trends and incidence of HIV infection.

HIV — Continued

In 1986, public health and medical specialists from within and outside the government were convened by the Public Health Service to develop a working estimate of the number of Americans with HIV infection. They estimated that between 1 and 1.5 million persons were infected. This conclusion was based on the estimated sizes of populations at risk and the estimated average seroprevalence values for those populations. Since then, this computation has been reexamined in light of recently available data; other data, on AIDS cases and disease progression, have been used to explore mathematical models. The resulting estimates vary widely, but they are consistent with the 1986 figures. The estimation of the total number of infected persons will remain complex and inexact. There is no substitute for carefully obtained incidence and prevalence data. Additional surveys and studies are needed to determine the current extent of spread of HIV through the population.

The full report on the review of HIV infection in the United States is being published as an *MMWR* supplement (Vol. 36, No. S-6) and will be dated December 18, 1987.

Epidemiologic Notes and Reports

Adult T-Cell Leukemia/Lymphoma Associated With Human T-Lymphotropic Virus Type I (HTLV-I) Infection — North Carolina

A case of adult T-cell leukemia/lymphoma (ATL) associated with human T-lymphotropic virus type I (HTLV-I) has been reported from North Carolina. The patient, a black adult male, developed jaundice in December 1986, after several weeks of anorexia, fatigue, and fever.

When admitted to the hospital, he had an enlarged liver, a serum bilirubin level of 15.5 mg/dL, and an SGOT level of 279 IU/L, but serologic tests for hepatitis B markers and hepatitis A antibody were negative. Ultrasound examination revealed no evidence of intra- or extra-hepatic obstruction. He was thought to have alcoholic hepatitis. During the next week, he became pancytopenic, and bone marrow biopsy revealed hypocellularity of all cell lines but no malignant infiltrates. He was given transfusions of red blood cells and platelets and was discharged in February 1987, despite continued clinical and laboratory abnormalities. The diagnosis upon discharge was resolving hepatitis.

In March 1987, the patient returned to the hospital because of abdominal pain, nausea, vomiting, and somnolence. Laboratory studies revealed a leukocytosis with abnormal lymphocytes, a calcium level of 20.5 mg/dL, and an amylase level of 1,209 IU/L. He was thought to have ATL with hypercalcemia and consequent acute pancreatitis. His condition deteriorated despite chemotherapy and treatment for hypercalcemia, and he died on March 22. Autopsy revealed leukemic infiltrates in the spleen, bone marrow, and kidneys. When peripheral blood mononuclear cells obtained before the patient's death were subjected to flow cytometric analysis, 95% of the cells were of the CD4+ (T-helper cell) phenotype. Antibodies against HTLV-I were detected in several serum samples by radioimmunoassay and by Western blot. HTLV-I was isolated from the man's peripheral blood lymphocytes.

Leukemia/Lymphoma — Continued

The patient had served in the U.S. Army in South Vietnam, Korea, and Germany and had gone to North Carolina after discharge. He was divorced at the time of his illness. He had used intravenous drugs and had shared needles with a woman with whom he had had sexual contact for 2 years before his illness. He had never had a blood transfusion.

Serum specimens were obtained from 28 family members and sexual contacts of the patient. Five of these persons had antibodies against HTLV-I. They comprised the woman with whom the patient had had sexual contact and had shared needles, this woman's former husband, another former female sexual partner of the patient, the patient's sister, and the sister's daughter. None of these persons had lived outside the United States or had received blood transfusions, and none other than the woman with whom the index patient had shared needles were known to have used intravenous drugs.

A serosurvey of 245 attendees at sexually transmitted disease and family planning clinics in the county in which the patient had resided revealed no persons seropositive for antibody against HTLV-I.

Reported by: JB Weinberg, MD, DL Blazey, MD, PhD, TJ Matthews, PhD, BF Haynes, MD, TJ Palker, PhD, Veterans Administration and Duke Univ Medical Center, Durham; RA Spiegel, DVM, MPH, RA Meriwether, MD, JN MacCormack, MD, MPH, State Epidemiologist, North Carolina Dept of Human Resources. M Robert-Guroff, PhD, M Popovic, MD, Laboratory of Tumor Cell Biology, National Cancer Institute, National Institutes of Health. Div of Field Svcs, Epidemiology Program Office; Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: HTLV-I, the first human retrovirus to be discovered, was first isolated and reported in the United States in 1980 (*1*) and in Japan in 1981 (*2*). Infection with HTLV-I, like infection with other retroviruses, probably occurs for life and can be inferred when antibody against HTLV-I is detected in the serum. Studies of HTLV-I antibody indicate that the virus is endemic in southern Japan (*3*), in the Caribbean (*4*), and in Africa (*5,6*).

HTLV-I infection in the United States appears to be rare. Although little serologic data exist, prevalence of infection is thought to be highest among blacks living in the Southeast (*7*). A prevalence rate of 30% has been found among black intravenous drug abusers in New Jersey, and a rate of 49% has been found in a similar group in New Orleans (*8*). It is possible that prevalence of infection is increasing in this risk group.

ATL is usually a highly aggressive non-Hodgkin's lymphoma with no characteristic histologic appearance except for a diffuse pattern and a mature T-cell phenotype. Circulating lymphocytes with an irregular nuclear contour (leukemic cells) are frequently seen. Several lines of evidence suggest that HTLV-I causes ATL. This evidence includes the frequent isolation of HTLV-I from patients with this disease and the detection of HTLV-I proviral genome in ATL leukemic cells (*9*). ATL is frequently accompanied by visceral involvement, hypercalcemia, lytic bone lesions, and skin lesions (*10*). Most patients die within 1 year of diagnosis.

ATL is relatively uncommon among those infected with HTLV-I. The overall incidence of ATL is estimated at about 1 per 1,500 adult HTLV-I carriers per year (*11,12*). Those cases that have been reported have occurred mostly among persons from the Caribbean or blacks from the Southeast (National Institutes of Health, unpublished data).

The presence in this investigation of family members and sexual contacts who are seropositive for HTLV-I is consistent with current knowledge concerning trans-

Leukemia/Lymphoma — Continued

mission of HTLV-I infection. Transmission occurs from mother to child; by sexual contact; and through exposure to contaminated blood, either through blood transfusion or sharing of contaminated needles. The source of the patient's sister's infection is obscure. She and her brother may have acquired infection from their mother, who is deceased.

Because of the rarity of ATL in the United States and the potential for learning more about the transmission of HTLV-I in the United States, physicians who see adults with diffuse non-Hodgkin's lymphoma with at least two features consistent with ATL (abnormal lymphocytes on peripheral blood smear, T-cell phenotype of malignant cells, visceral involvement, hypercalcemia, lytic bone lesions, and skin lesions) are encouraged to report these cases through their local and state health departments to the Retrovirus Diseases Branch, Division of Viral Diseases, Center for Infectious Diseases, CDC, telephone number (404) 639-3091.

(Continued on page 812)

TABLE I. Summary — cases of specified notifiable diseases, United States

Disease	48th Week Ending			Cumulative, 48th Week Ending		
	Dec. 12, 1987	Dec. 6, 1986	Median 1982-1986	Dec. 12, 1987	Dec. 6, 1986	Median 1982-1986
Acquired Immunodeficiency Syndrome (AIDS)	414	61	N	19,266	12,248	N
Aseptic meningitis	97	267	189	10,588	10,350	9,820
Encephalitis: Primary (arthropod-borne & unspec)	15	33	29	1,208	1,161	1,235
Post-infectious	2	1	2	86	89	99
Gonorrhea: Civilian	12,533	17,655	17,957	721,291	838,708	838,708
Military	198	248	443	15,211	15,811	19,988
Hepatitis: Type A	565	531	530	23,150	21,573	21,573
Type B	524	542	542	23,867	24,279	24,279
Non A, Non B	55	84	N	2,719	3,329	N
Unspecified	61	91	115	2,930	4,122	5,412
Legionellosis	9	23	N	814	779	N
Leprosy	8	5	5	188	241	226
Malaria	6	14	19	800	1,059	973
Measles: Total*	18	41	14	3,572	5,961	2,830
Indigenous	16	40	N	3,151	5,656	N
Imported	2	1	N	421	305	N
Meningococcal infections: Total	45	53	56	2,586	2,335	2,517
Civilian	45	53	56	2,585	2,333	2,513
Military	-	-	-	1	2	7
Mumps	186	279	60	11,969	5,190	3,068
Pertussis	30	59	39	2,351	3,961	2,203
Rubella (German measles)	-	3	9	325	508	716
Syphilis (Primary & Secondary): Civilian	651	463	565	33,780	25,473	26,274
Military	1	1	2	151	153	273
Toxic Shock syndrome	8	12	N	310	342	N
Tuberculosis	497	527	527	20,136	20,624	20,624
Tularemia	1	4	4	183	157	244
Typhoid Fever	2	3	10	329	301	366
Typhus fever, tick-borne (RMSF)	2	3	5	579	734	825
Rabies, animal	52	60	82	4,358	5,101	5,101

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1987		Cum. 1987
Anthrax	1	Leptospirosis (Mich. 1)	37
Botulism: Foodborne	12	Plague	11
Infant (Ky. 1)	45	Poliomyelitis, Paralytic	-
Other	2	Psittacosis (Fla. 1)	77
Brucellosis (Tex. 9; Calif. 1)	113	Rabies, human	-
Cholera	4	Tetanus (Vt. 1)	38
Congenital rubella syndrome	5	Trichinosis (Alaska 1)	34
Congenital syphilis, ages < 1 year	127	Typhus fever, flea-borne (endemic, murine) (Tex. 2; Hawaii 1)	37
Diphtheria	3		

*Two of the 18 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending December 12, 1987 and December 6, 1986 (49th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1987	1987	Cum. 1987	Cum. 1987	Cum. 1987	Cum. 1986	1987	1987	1987	1987	1987	Cum. 1987
UNITED STATES	19,286	97	1,208	95	721,291	838,708	565	524	65	61	9	188
NEW ENGLAND	802	1	44	2	22,470	20,561	25	28	1	8	-	13
Maine	28	-	4	-	666	800	-	-	-	-	-	-
N.H.	30	1	2	-	384	537	6	8	-	-	-	2
Vt.	15	-	6	-	205	252	-	1	-	-	-	-
Mass.	456	-	17	1	7,887	8,124	8	10	1	8	-	10
R.I.	60	-	3	1	2,034	1,768	1	1	-	-	-	-
Conn.	213	-	12	-	11,294	9,080	10	8	-	-	-	1
MID. ATLANTIC	5,707	6	137	8	113,228	146,065	44	92	3	4	-	21
Upstate N.Y.	684	3	49	3	15,674	17,663	26	17	1	1	-	-
N.Y. City	3,106	1	14	1	61,100	84,374	12	60	-	2	-	21
N.J.	1,364	2	10	-	15,578	18,726	6	15	2	1	-	-
Pa.	573	-	64	4	20,876	25,302	-	-	-	-	-	-
E.N. CENTRAL	1,243	18	351	13	110,482	112,518	33	37	5	4	2	8
Ohio	279	6	158	6	25,238	27,531	16	17	1	2	-	3
Ind.	110	-	53	-	8,789	12,010	-	-	-	-	-	-
Ill.	548	-	25	7	31,947	25,465	3	2	-	1	-	1
Mich.	210	11	78	-	35,386	35,471	14	18	4	1	2	3
Wis.	96	1	37	-	9,122	11,789	-	-	-	-	-	1
W.N. CENTRAL	445	6	87	-	29,087	36,007	48	23	5	-	2	-
Minn.	130	-	53	-	4,311	5,172	2	4	3	-	1	-
Iowa	27	-	13	-	2,870	3,675	3	2	-	-	1	-
Mo.	220	3	1	-	15,488	17,777	41	16	2	-	-	-
N. Dak.	2	-	1	-	264	290	-	-	-	-	-	-
S. Dak.	2	1	-	-	584	732	-	-	-	-	-	-
Nebr.	18	1	10	-	1,917	2,680	2	1	-	-	-	-
Kans.	46	1	9	-	3,662	5,681	-	-	-	-	-	-
S. ATLANTIC	3,247	24	183	35	188,968	217,806	23	82	8	4	3	6
Del.	32	-	7	1	3,230	3,534	-	-	-	-	-	-
Md.	406	7	20	7	21,709	25,752	5	21	2	1	2	2
D.C.	430	-	-	-	12,576	16,236	-	-	-	-	-	-
Va.	221	6	38	2	13,779	17,849	4	3	-	-	-	-
W. Va.	20	-	55	-	1,341	2,085	-	-	-	-	-	-
N.C.	166	-	26	-	28,770	33,717	1	20	3	-	-	-
S.C.	75	1	1	-	14,192	18,399	2	10	1	-	-	1
Ga.	457	2	1	-	33,746	36,877	4	8	-	-	-	-
Fla.	1,440	8	15	25	59,617	64,257	7	30	2	3	1	3
E.S. CENTRAL	293	1	61	7	54,406	68,567	14	23	3	1	1	-
Ky.	43	-	31	1	5,487	7,396	12	7	2	-	1	-
Tenn.	70	1	13	-	19,202	25,081	2	14	-	-	-	-
Ala.	143	-	17	1	16,911	19,511	-	2	1	1	-	-
Miss.	37	-	-	5	12,806	14,579	-	-	-	-	-	-
W.S. CENTRAL	1,961	16	145	4	80,948	97,400	88	52	7	14	-	4
Ark.	45	-	2	2	9,177	9,173	18	2	2	-	-	-
La.	333	1	28	-	13,167	16,705	1	13	1	2	-	-
Okla.	96	-	26	1	8,834	11,120	-	-	-	-	-	-
Tex.	1,487	15	89	1	49,970	60,402	49	37	4	12	-	4
MOUNTAIN	858	3	73	4	18,712	24,504	117	53	12	6	1	2
Mont.	7	-	1	-	535	641	1	1	-	-	-	-
Idaho	10	-	-	-	647	820	15	5	-	-	-	1
Wyo.	3	-	1	-	400	510	-	1	-	-	-	-
Colo.	205	3	42	-	4,256	6,320	6	5	2	-	1	-
N. Mex.	46	-	5	-	2,033	2,613	9	1	-	-	-	-
Ariz.	168	-	18	1	6,377	7,949	75	36	7	5	-	-
Utah	39	-	1	3	612	1,045	9	4	3	-	-	-
Nev.	80	-	5	-	3,852	4,606	2	-	-	1	-	1
PACIFIC	5,010	22	147	22	103,019	117,281	193	134	11	20	-	134
Wash.	318	-	11	4	8,265	8,666	60	25	2	2	-	8
Oreg.	153	-	-	-	3,747	5,123	23	13	1	-	-	1
Calif.	4,445	19	130	18	88,515	100,028	102	94	8	15	-	104
Alaska	14	1	3	-	1,605	2,473	7	2	-	3	-	-
Hawaii	80	2	3	-	787	1,223	1	-	-	-	-	23
Guam	3	-	-	-	180	297	-	-	-	-	-	-
P.R.	180	1	1	1	1,813	2,293	2	1	1	11	-	5
V.I.	-	-	-	-	276	259	-	-	-	-	-	-
Pac. Trust Terr.	-	-	-	-	355	486	-	1	-	-	-	48
Amer. Samoa	-	-	-	-	76	56	-	-	-	-	-	1

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending December 12, 1987 and December 6, 1986 (49th Week)

Reporting Area	Malaria	Measles (Rubeola)					Meningococcal infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
	Cum. 1987	1987	Cum. 1987	1987	Cum. 1987	Cum. 1986	Cum. 1987	1987	Cum. 1987	1987	Cum. 1987	Cum. 1986	1987	Cum. 1987	Cum. 1986
UNITED STATES	800	16	3,151	2	421	5,961	2,666	185	11,959	30	2,351	3,961	-	325	508
NEW ENGLAND	54	1	120	-	163	103	224	-	60	9	170	173	-	2	9
Maine	2	-	3	-	-	13	13	-	1	5	33	2	-	1	-
N.H.	3	1	62	-	102	43	22	-	11	4	43	82	-	-	1
Vt.	-	-	11	-	15	-	19	-	7	-	4	3	-	-	1
Mass.	22	-	27	-	39	36	109	-	23	-	56	56	-	1	4
R.I.	8	-	1	-	1	2	14	-	2	-	5	6	-	-	2
Conn.	19	-	16	-	6	9	47	-	16	-	30	24	-	-	1
MID. ATLANTIC	110	2	531	-	57	1,785	351	4	274	5	293	204	-	12	37
Upstate N.Y.	34	2	29	-	14	101	122	3	112	1	163	126	-	10	27
N.Y. City	23	-	447	-	19	727	36	-	16	-	19	10	-	1	5
N.J.	27	-	32	-	7	909	71	-	75	1	21	20	-	1	5
Pa.	26	-	23	-	17	28	122	1	71	3	90	48	-	-	-
E.N. CENTRAL	51	2	362	-	25	1,122	413	26	6,424	-	236	392	-	37	77
Ohio	13	-	1	-	4	10	137	-	113	-	74	166	-	-	1
Ind.	7	-	-	-	-	38	42	-	934	-	17	36	-	-	-
Ill.	7	2	189	-	18	681	101	7	2,625	-	17	39	-	27	67
Mich.	18	-	29	-	-	106	108	19	1,072	-	49	36	-	9	8
Wis.	6	-	143	-	3	287	25	-	1,680	-	79	112	-	1	1
W.N. CENTRAL	28	-	208	-	22	340	108	6	1,420	1	139	1,347	-	2	14
Minn.	8	-	19	-	20	49	31	1	782	1	14	48	-	-	1
Iowa	6	-	-	-	-	134	5	5	451	-	58	19	-	1	1
Mo.	8	-	188	-	1	32	31	-	33	-	34	24	-	-	1
N. Dak.	-	-	1	-	-	25	1	-	6	-	14	5	-	-	1
S. Dak.	-	-	-	-	-	-	3	-	90	-	3	14	-	-	-
Nebr.	6	-	-	-	-	1	6	-	4	-	1	10	-	-	-
Kans.	1	-	-	-	1	99	31	-	54	-	15	1,227	-	1	10
S. ATLANTIC	141	7	165	-	13	859	439	3	303	3	313	768	-	18	12
Del.	3	-	32	-	-	1	7	-	-	-	5	227	-	2	-
Md.	33	-	9	-	2	35	43	-	30	-	19	164	-	3	1
D.C.	20	-	-	-	1	2	10	-	1	-	-	-	-	1	-
Va.	25	-	1	-	-	60	68	3	83	3	55	60	-	1	-
W. Va.	2	-	-	-	-	2	5	-	40	-	50	28	-	-	-
N.C.	13	-	2	-	4	4	52	-	30	-	119	82	-	1	-
S.C.	6	-	2	-	-	301	39	-	19	-	-	18	-	-	-
Ga.	6	-	9	-	1	93	86	-	40	-	23	133	-	2	-
Fla.	33	7	110	-	5	361	126	-	60	-	42	68	-	8	11
E.S. CENTRAL	15	-	5	-	3	70	143	109	1,483	-	47	49	-	3	4
Ky.	3	-	-	-	-	6	27	-	273	-	2	5	-	2	4
Tenn.	1	-	-	-	-	56	63	108	1,147	-	15	18	-	1	-
Ala.	5	-	1	-	3	2	44	1	62	-	24	25	-	-	-
Miss.	6	-	4	-	-	6	9	N	N	-	6	1	-	-	-
W.S. CENTRAL	54	-	444	-	4	723	180	25	1,293	-	304	252	-	11	71
Ark.	1	-	-	-	-	263	21	-	293	-	13	20	-	2	1
La.	1	-	-	-	-	4	23	11	676	-	90	15	-	-	-
Okla.	5	-	3	-	1	39	24	N	N	-	163	128	-	5	-
Tex.	47	-	441	-	3	387	112	14	308	-	78	89	-	4	70
MOUNTAIN	42	-	480	-	19	330	87	6	237	10	213	278	-	25	24
Mont.	-	-	127	-	1	8	4	-	7	1	7	20	-	8	2
Idaho	3	-	-	-	-	1	6	-	7	8	73	49	-	1	-
Wyo.	2	-	-	-	2	-	-	-	-	-	5	4	-	1	1
Colo.	13	-	5	-	4	10	31	1	31	1	68	86	-	-	1
N. Mex.	2	-	311	-	9	38	7	N	N	-	12	29	-	-	-
Ariz.	18	-	35	-	1	258	26	5	175	-	38	65	-	5	2
Utah	1	-	-	-	1	13	9	-	12	-	10	42	-	10	16
Nev.	3	-	2	-	1	2	4	-	6	-	-	4	-	-	3
PACIFIC	305	4	836	2	115	649	742	6	455	2	636	486	-	215	200
Wash.	26	-	34	21	12	168	79	1	63	1	98	151	-	2	17
Oreg.	6	-	21	-	81	12	35	N	N	-	71	16	-	2	4
Calif.	267	4	781	-	17	440	611	5	379	1	226	298	-	139	233
Alaska	3	-	-	-	1	-	7	-	7	-	5	5	-	2	-
Hawaii	3	-	2	-	4	29	10	-	16	-	236	31	-	70	6
Guam	-	-	2	-	-	5	5	-	5	-	-	-	-	1	4
P.R.	1	-	771	-	-	36	5	1	13	-	20	19	-	3	62
V.I.	-	-	-	-	-	-	-	1	21	-	-	-	-	1	-
Pac. Trust Terr.	-	-	1	-	-	-	1	-	5	-	1	-	-	1	3
Amer. Samoa	-	-	2	-	-	2	-	-	7	-	-	-	-	-	1

*For measles only, imported cases includes both out-of-state and international importations.
N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending December 12, 1987 and December 6, 1986 (49th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1987	Cum. 1986	1987	Cum. 1987	Cum. 1986	Cum. 1987	Cum. 1987	Cum. 1987	Cum. 1987
UNITED STATES	33,780	25,473	6	20,138	20,624	183	329	579	4,358
NEW ENGLAND	613	465	-	601	643	1	32	8	7
Maine	1	18	-	28	34	-	1	-	3
N.H.	3	13	-	18	32	-	-	-	-
Vt.	4	9	-	16	16	-	1	-	-
Mass.	293	253	-	328	353	1	19	4	-
R.I.	12	19	-	58	42	-	3	-	1
Conn.	300	152	-	153	166	-	8	4	3
MID. ATLANTIC	6,149	3,580	1	3,732	4,064	1	43	25	381
Upstate N.Y.	233	185	1	493	594	1	9	11	54
N.Y. City	4,584	2,017	-	1,841	2,113	-	13	5	-
N.J.	674	618	-	674	690	-	21	1	15
Pa.	658	760	-	724	657	-	-	8	312
E.N. CENTRAL	827	814	-	2,236	2,418	3	36	39	149
Ohio	104	117	-	400	430	1	11	22	14
Ind.	58	108	-	220	262	-	5	1	17
Ill.	418	370	-	1,018	1,055	-	12	7	44
Mich.	191	177	-	508	566	-	5	5	28
Wis.	58	42	-	90	105	2	3	3	46
W.N. CENTRAL	175	201	1	574	605	85	11	54	919
Minn.	22	31	-	112	144	-	5	-	224
Iowa	26	9	1	38	46	4	2	1	261
Mo.	79	104	-	311	286	41	3	19	54
N. Dak.	1	6	-	14	10	1	-	-	105
S. Dak.	11	9	-	24	29	9	-	1	219
Nebr.	16	12	-	25	15	3	-	3	16
Kans.	20	30	-	50	66	7	1	30	40
S. ATLANTIC	11,842	7,732	1	4,335	4,140	5	34	222	1,261
Del.	67	55	-	39	48	1	-	2	-
Md.	596	435	-	366	288	-	4	46	431
D.C.	392	287	-	149	152	-	2	-	42
Va.	313	322	-	409	384	2	9	22	349
W. Va.	13	20	-	98	115	-	1	7	74
N.C.	884	505	-	564	609	2	3	80	8
S.C.	668	656	-	439	527	-	-	33	59
Ga.	1,591	1,420	1	777	700	-	2	29	199
Fla.	7,528	4,032	-	1,474	1,349	-	13	3	99
E.S. CENTRAL	1,805	1,688	-	1,819	1,840	6	4	98	301
Ky.	24	65	-	399	414	3	2	13	135
Tenn.	719	595	-	571	545	1	1	58	81
Ala.	475	486	-	519	567	1	1	15	78
Miss.	587	542	-	330	314	3	-	12	7
W.S. CENTRAL	4,148	4,948	-	2,343	2,666	72	30	117	576
Ark.	240	244	-	299	369	36	2	12	120
La.	768	875	-	295	391	3	-	-	13
Okla.	169	139	-	224	238	28	4	87	32
Tex.	2,969	3,688	-	1,545	1,667	3	24	18	411
MOUNTAIN	665	589	1	487	514	16	16	13	368
Mont.	9	7	-	18	27	2	-	11	164
Idaho	6	14	-	17	23	1	-	-	9
Wyo.	3	4	-	-	-	-	-	1	73
Colo.	119	131	-	40	72	5	-	-	7
N. Mex.	54	68	-	98	94	1	11	-	3
Ariz.	284	239	1	288	230	3	4	-	81
Utah	24	18	-	25	31	2	-	1	7
Nev.	166	108	-	33	37	2	1	-	14
PACIFIC	7,558	5,458	2	4,011	3,745	12	123	4	408
Wash.	144	168	1	232	200	4	8	-	-
Oreg.	290	110	-	121	118	5	2	1	-
Calif.	7,104	5,145	1	3,405	3,204	2	105	3	401
Alaska	4	1	-	67	55	1	-	-	5
Hawaii	16	34	-	186	168	-	8	-	-
Guam	2	1	-	28	35	-	-	-	-
P.R.	850	819	-	281	310	-	-	-	67
V.I.	10	1	-	2	1	-	-	-	-
Pac. Trust Terr.	222	282	-	154	94	-	20	-	-
Amer. Samoa	2	1	-	4	5	-	1	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending December 12, 1987 (49th Week)

Reporting Area	All Causes, By Age (Years)						P&I**
	All Ages	≥65	45-64	25-44	1-24	<1	Total
NEW ENGLAND	626	433	121	47	10	15	47
Boston, Mass.	169	106	33	20	4	6	19
Bridgeport, Conn.	41	30	5	4	1	1	3
Cambridge, Mass.	24	19	5	-	-	-	2
Fall River, Mass.	27	20	6	1	-	-	-
Hartford, Conn.	90	52	21	11	3	3	2
Lowell, Mass.	33	25	6	-	-	2	1
Lynn, Mass.	17	15	2	-	-	-	3
New Bedford, Mass.	28	25	3	-	-	-	1
New Haven, Conn.	9	4	2	2	1	-	1
Providence, R.I.	52	40	11	1	-	-	1
Somerville, Mass.	8	6	2	-	-	-	-
Springfield, Mass.§	48	37	8	3	-	-	3
Waterbury, Conn.	37	25	7	3	-	2	4
Worcester, Mass.	43	29	10	2	1	1	7
MID. ATLANTIC	2,717	1,770	520	287	70	70	134
Albany, N.Y.	62	45	7	6	2	2	3
Allentown, Pa.	17	10	5	1	-	1	1
Buffalo, N.Y.	109	79	18	8	1	3	6
Camden, N.J.	36	25	7	4	-	-	-
Elizabeth, N.J.	19	12	5	1	1	-	-
Erie, Pa.†	35	23	9	2	2	-	6
Jersey City, N.J.	46	36	7	4	-	-	-
N.Y. City, N.Y.	1,438	914	281	185	41	37	64
Newark, N.J.	133	64	24	29	6	10	4
Paterson, N.J.	25	16	4	4	1	-	1
Philadelphia, Pa.	396	258	92	27	7	12	19
Pittsburgh, Pa.†	67	39	12	4	1	1	-
Reading, Pa.	29	22	3	1	2	1	6
Rochester, N.Y.	125	88	20	11	4	2	10
Schenectady, N.Y.	20	16	1	3	-	-	-
Scranton, Pa.†	17	16	1	-	-	-	2
Syracuse, N.Y.	93	61	19	11	1	1	8
Trenton, N.J.	23	19	2	2	-	-	1
Utica, N.Y.	19	18	-	1	-	-	2
Yonkers, N.Y.	18	10	4	3	1	-	1
E.N. CENTRAL	2,369	1,585	520	153	59	72	96
Akron, Ohio	97	66	24	3	3	2	3
Canton, Ohio	35	24	8	1	1	1	2
Chicago, Ill.§	564	382	125	45	10	22	16
Cincinnati, Ohio	102	71	22	5	-	4	8
Cleveland, Ohio	155	94	42	12	3	4	3
Columbus, Ohio	175	112	40	8	8	7	2
Dayton, Ohio	126	86	22	9	7	3	5
Detroit, Mich.	268	186	57	31	13	11	5
Evansville, Ind.	30	24	3	2	-	1	2
Fort Wayne, Ind.	47	32	9	3	2	1	2
Gary, Ind.	18	12	5	1	-	-	-
Grand Rapids, Mich.	91	57	17	3	1	3	7
Indianapolis, Ind.	159	98	39	11	7	4	2
Madison, Wis.	34	25	7	2	-	-	3
Milwaukee, Wis.§	140	103	28	3	-	6	6
Peoria, Ill.	50	35	10	3	-	2	8
Rockford, Ill.	49	32	11	4	2	-	5
South Bend, Ind.	80	44	5	1	-	-	4
Toledo, Ohio	127	93	27	5	2	-	13
Youngstown, Ohio	62	40	19	2	-	1	-
W.N. CENTRAL	918	671	150	47	16	31	38
Des Moines, Iowa	79	56	16	5	1	1	5
Duluth, Minn.	30	25	3	2	-	-	1
Kansas City, Kans.	36	21	10	1	1	3	-
Kansas City, Mo.	109	79	21	4	1	4	4
Lincoln, Nebr.	33	31	2	-	-	-	1
Minneapolis, Minn.	247	183	32	14	8	10	17
Omaha, Nebr.	77	53	12	8	1	3	1
St. Louis, Mo.	155	106	32	7	2	7	2
St. Paul, Minn.	64	51	11	1	-	1	1
Wichita, Kans.	86	66	11	5	2	2	6
S. ATLANTIC	1,171	708	276	104	45	38	55
Atlanta, Ga.	197	120	50	17	7	3	5
Baltimore, Md.	116	71	27	13	1	4	7
Charlotte, N.C.	96	55	23	9	4	5	8
Jacksonville, Fla.	112	71	30	6	5	-	2
Miami, Fla.	118	52	39	14	8	5	2
Norfolk, Va.	65	41	9	9	1	5	4
Richmond, Va.	90	48	29	4	7	2	10
Savannah, Ga.	50	31	8	6	1	4	2
St. Petersburg, Fla.	78	61	12	2	1	2	4
Tampa, Fla.	72	53	13	4	1	1	3
Washington, D.C.	144	80	29	19	9	7	4
Wilmington, Del.	33	25	7	1	-	-	4
E.S. CENTRAL	906	569	208	82	31	36	53
Birmingham, Ala.	132	77	30	13	5	7	6
Chattanooga, Tenn.	59	41	14	1	1	2	4
Knoxville, Tenn.	103	66	23	8	5	1	6
Louisville, Ky.	119	66	37	8	5	3	5
Memphis, Tenn.	193	129	38	12	6	8	14
Mobile, Ala.	69	40	14	4	4	7	3
Montgomery, Ala.	55	36	14	4	1	-	7
Nashville, Tenn.	176	114	36	12	4	8	8
W.S. CENTRAL	1,307	839	271	114	39	44	56
Austin, Tex.	60	36	12	8	2	-	2
Baton Rouge, La.	53	37	11	3	-	2	3
Corpus Christi, Tex.	32	21	5	2	1	3	-
Dallas, Tex.	190	106	41	23	12	6	7
El Paso, Tex.	60	39	16	3	2	-	2
Fort Worth, Tex	99	63	16	7	5	8	4
Houston, Tex.§	306	176	74	34	13	11	7
Little Rock, Ark.	54	38	11	3	1	1	5
New Orleans, La.	112	75	26	9	-	2	-
San Antonio, Tex.	183	131	31	13	1	7	20
Shreveport, La.	37	21	9	4	-	3	1
Tulsa, Okla.	119	92	19	5	2	1	5
MOUNTAIN	712	455	146	52	21	38	36
Albuquerque, N. Mex.	89	58	16	9	4	2	2
Colo. Springs, Colo.	27	19	5	2	1	-	-
Denver, Colo.	135	75	26	10	7	17	8
Las Vegas, Nev.	98	64	27	4	3	-	5
Ogden, Utah	23	15	4	3	-	1	2
Phoenix, Ariz.	147	90	25	12	5	15	6
Pueblo, Colo.	20	17	1	2	-	-	6
Salt Lake City, Utah	55	35	13	6	-	1	2
Tucson, Ariz.	118	82	29	4	1	2	5
PACIFIC	2,232	1,483	438	162	67	70	127
Berkeley, Calif.	20	14	6	-	-	-	1
Fresno, Calif.	96	66	20	6	3	1	10
Glendale, Calif.	26	16	7	3	-	-	2
Honolulu, Hawaii	70	51	13	2	-	4	8
Long Beach, Calif.	158	104	36	10	3	5	12
Los Angeles Calif.	669	420	131	61	24	14	25
Oakland, Calif.	90	61	20	5	-	4	6
Pasadena, Calif.	28	15	10	2	-	1	3
Portland, Oreg.	160	123	17	7	7	6	6
Sacramento, Calif.	159	104	32	10	7	6	10
San Diego, Calif.	149	93	37	8	4	4	4
San Francisco, Calif.	173	101	32	25	7	8	7
San Jose, Calif.	197	142	30	12	4	9	17
Seattle, Wash.	138	96	26	5	7	4	3
Spokane, Wash.	73	53	15	3	-	2	10
Tacoma, Wash.	36	24	6	3	1	2	3
TOTAL	12,956††	8,493	2,650	1,028	358	414	642

*Mortality data in this table are voluntarily reported from 121 cities in the United states, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza.

†Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages.

§Data not available. Figures are estimates based on average of past 4 weeks.

TABLE V. Estimated years of potential life lost before age 65 and cause-specific mortality, by cause of death — United States, 1985

Cause of mortality (ICD, 9th Revision)	YPLL for persons dying in 1985*	Cause-specific mortality, 1985† (rate/100,000)
ALL CAUSES (Total)	11,844,475	874.8
Unintentional injuries§ (E800-E949)	2,335,384	39.9
Malignant neoplasms (140-208)	1,813,245	191.7
Diseases of the heart (390-398,402,404-429)	1,600,265	325.0
Suicide, homicide (E950-E978)	1,241,688	20.1
Congenital anomalies (740-759)	694,715	5.5
Prematurity¶ (765, 769)	444,931	2.9
Sudden infant death syndrome (798)	313,386	2.0
Cerebrovascular disease (430-438)	253,044	64.0
Chronic liver diseases and cirrhosis (571)	235,629	11.2
Pneumonia and influenza (480-487)	168,949	27.9
Acquired immunodeficiency syndrome (AIDS)**	152,595	2.3
Chronic obstructive pulmonary diseases (490-496)	129,815	31.2
Diabetes mellitus (250)	128,229	16.2

*For details of calculation, see footnotes to Table V, *MMWR* 1987;36:56.
†Cause-specific mortality rates as reported in the National Center for Health Statistics' *Monthly Vital Statistics Report* are compiled from a 10% sample of all deaths.
§Equivalent to accidents and adverse effects.
¶Category derived from disorders relating to short gestation and respiratory distress syndrome.

Leukemia/Lymphoma — Continued

References

1. Poiesz BJ, Ruscetti FW, Gazdar AF, Bunn PA, Minna JD, Gallo RC. Detection and isolation of type C retrovirus particles from fresh and cultured lymphocytes of a patient with cutaneous T-cell lymphoma. Proc Natl Acad Sci USA 1980;77:7415-9.
2. Hinuma Y, Nagata K, Hanaoka M, et al. Adult T-cell leukemia: antigen in an ATL cell line and detection of antibodies to the antigen in human sera. Proc Natl Acad Sci USA 1981;78:6476-80.
3. Maeda Y, Furukawa M, Takehara Y, et al. Prevalence of possible adult T-cell leukemia virus-carriers among volunteer blood donors in Japan: a nation-wide study. Int J Cancer 1984;33:717-20.
4. Blattner WA, Kalyanaraman VS, Robert-Guroff M, et al. The human type-C retrovirus, HTLV, in blacks from the Caribbean region, and relationship to adult T-cell leukemia/lymphoma. Int J Cancer 1982;30:257-64.
5. Hunsmann G, Bayer H, Schneider J, et al. Antibodies to ATLV/HTLV-1 in Africa. Med Microbiol Immunol 1984;173:167-70.
6. Hunsmann G, Schneider J, Schmitt J, Yamamoto N. Detection of serum antibodies to adult T-cell leukemia virus in non-human primates and in people from Africa. Int J Cancer 1983;32:329-32.
7. Blayney DW, Blattner WA, Robert-Guroff M, et al. The human T-cell leukemia-lymphoma virus in the southeastern United States. JAMA 1983;250:1048-52.
8. Weiss SH, Ginzburg HM, Saxinger WC, et al. Emerging high rates of human T-cell lymphotropic virus type I (HTLV-I) and HIV infection among U.S. drug abusers. Presented at the third international conference on acquired immunodeficiency syndrome (AIDS), Washington, DC, June 1-5, 1987.
9. Hinuma Y. Natural history of the retrovirus associated with a human leukemia. Bioessays 1985;3:205-9.
10. Kuefler PR, Bunn PA Jr. Adult T cell leukaemia/lymphoma. Clin Haematol 1986;15:695-726.
11. Tajima K, Kuroishi T. Estimation of rate of incidence of ATL among ATLV (HTLV-I) carriers in Kyushu, Japan. Jpn J Clin Oncol 1985;15:423-30.
12. Kondo T, Nonaka H, Miyamoto N, et al. Incidence of adult T-cell leukemia-lymphoma and its familial clustering. Int J Cancer 1985;35:749-51.

International Outbreak of Type E Botulism Associated With Ungutted, Salted Whitefish

On November 2, 1987, a 39-year-old Russian immigrant and his 9-year-old son were admitted to a suburban New York hospital with symptoms indicative of botulism. The father's stool specimen contained type E botulinum toxin. On October 23, the father had purchased a whole, ungutted, salted, air-dried whitefish known as either ribyetz or kapchunka from a delicatessen in Queens, New York City. He and his son had eaten the fish on October 30 and 31. On November 3, 1987, CDC received a report from the Ministry of Health, Jerusalem, Israel, of five additional cases suspected to be botulism; one case was fatal. The patients had eaten ribyetz purchased in a grocery in Brighton Beach, Brooklyn, New York City, on October 17 and taken to Israel. The fish as well as a serum sample from one surviving patient subsequently yielded type E botulinum toxin.

The implicated fish was distributed in the New York City area by Gold Star Smoked Fish Inc., a firm in Brooklyn. On November 3, the New York City Department of Health issued an embargo on the sale and distribution of ribyetz or kapchunka and removed the implicated product from the shelves of stores selling Gold Star products. The

Botulism – Continued

public was alerted through news releases, and acute care hospitals in New York City and surrounding areas were notified. No additional cases have been identified in New York. However, one additional laboratory-confirmed case of botulism has been reported in Israel. On November 13, the patient, a 17-year-old female, had eaten whitefish that had been purchased on October 18 at the same delicatessen in Queens associated with the original patients.

Reported by: S Kotev, MD, Hadassah Univ Hospital, Jerusalem; A Leventhal, MD, MPH, A Bashary, RN, H Zahavi, RN, Jerusalem Dist Health Office; A Cohen, National Botulism Reference Lab; P Slater, MD, MPH, Ministry of Health, Israel. A Ruston, MD, E Baron, PhD, B Farber, MD, J Greenspan, MD, M Tenenbaum, MD, R vanAmerongon, MD, North Shores Univ Hospital, Manhasset; V Tulumello, J Lynch, Nassau County Health Dept; S Schultz, MD, C Reisberg, S Shahidi, PhD, S Joseph, MD, New York City Dept of Health; L Crowell, DVM, J Ferrara, New York State Dept of Agriculture and Markets; J Guzewich, M Shayegani, PhD, G Hannett, DL Morse, MD, MS, State Epidemiologist, New York State Dept of Health. US Food and Drug Administration. Div of Field Svcs, Epidemiology Program Office; Enteric Diseases Br, Div of Bacterial Diseases, Center for Infectious Diseases, CDC.

Editorial note: Ribyetz, or kapchunka, is an ethnic food consumed in this country primarily by Russian immigrants. It has been implicated as a vehicle for botulism twice in recent years. In 1981, a California man became ill (*1*), and, in 1985, two Russian immigrants died in New York City after eating the fish (*2,3*). Type E botulism is typically associated with foods of marine origin (*4*). The mechanism of contamination of the ribyetz has not been established. However, *Clostridium botulinum* spores can be found in the intestinal contents of fish, and the fact that the fish were uneviscerated may have been important (*5*).

The whitefish implicated in this outbreak was produced by one firm and distributed only in New York City. In addition to halting the distribution of the fish, officials in New York City and New York State are developing regulations that would in effect prohibit the production and sale of such uneviscerated whitefish. Although refrigeration is recommended, some consumers may be storing the fish unrefrigerated before eating it uncooked. Persons who purchased ribyetz in New York City in October should dispose of any remaining fish in such a way as to make it inaccessible to others.

Public health personnel should be aware of the potential problem, especially for people in ethnic groups known to eat this product. Guidance in treating botulism and testing serum and stool samples for botulinal toxin can be obtained through state or city health departments. Requests for testing specimens of ribyetz can be made through the district offices of the Food and Drug Administration (FDA) or the FDA Division of Emergency and Epidemiological Operations, Rockville, Maryland 20857; telephone number (301) 443-1240.

References

1. California Department of Health Services. Alert: botulism associated with commercially produced, dried, salted whitefish. California Morbidity, November 6, 1981;(suppl 43).
2. Centers for Disease Control. Botulism associated with commercially distributed kapchunka – New York City. MMWR 1985;34:546-7.
3. Badhey H, Cleri DJ, D'Amato RF, et al. Two fatal cases of type E adult food-borne botulism with early symptoms and terminal neurologic signs. J Clin Microbiol 1986;23:616-8.
4. Centers for Disease Control. Botulism in the United States, 1899-1977: handbook for epidemiologists, clinicians, and laboratory workers. Atlanta: US Department of Health, Education, and Welfare, Public Health Service, 1979.
5. Bott TL, Deffner JS, McCoy E, Foster EM. *Clostridium botulinum* type E in fish from the Great Lakes. J Bacteriol 1966;91:919-24.

Perspectives in Disease Prevention and Health Promotion

Premature Mortality Due to Unintentional Injuries — United States, 1984

Unintentional injuries are the leading cause of years of potential life lost (YPLL) before the age of 65. In 1985, unintentional injuries (E800-949)* accounted for over 2.2 million YPLL, or 19% of all YPLL. Unintentional injuries were also the leading cause of YPLL in 1983 and 1984 (*1*).

For this analysis, National Center for Health Statistics (NCHS) mortality data for 1984, the latest year for which detailed data are available, were used to determine the number of deaths associated with unintentional injury and the related YPLL. Population data, based on the 1984 U.S. Bureau of the Census estimates, were used to calculate age- and cause-specific YPLL rates.

In 1984, motor vehicle traffic crashes (E810-819), which caused 39,228 deaths, were the leading cause of both YPLL and deaths resulting from unintentional injuries. Injuries to passenger vehicle occupants are the major cause of deaths due to motor vehicle crashes and cause one out of every three deaths from all causes among 15-to 19-year-old males (*2*). Deaths from drowning (E910), fire and flames (E890-899), poisoning (E850-869), falls (E880-888), unintentional discharge of firearms (E922), and choking on food or objects (E911-912) were also leading causes of YPLL in 1984.

Fatalities caused by nontraffic motor vehicle crashes involving off-the-road vehicles, such as snowmobiles and all-terrain vehicles, and fatalities due to air and water transportation remained among the ten unintentional injuries that cause the largest number of deaths and YPLL (Table 1). For all unintentional injuries, the rate of YPLL for males was between 1.7 and 8.9 times greater (depending on the unintentional injury) than that for females. This difference was greatest for fatal injuries involving air transportion.

In 1984, fatalities involving pedestrians were the second leading cause of motor vehicle traffic deaths and constituted about 14% of all fatalities associated with motor vehicle traffic incidents. A total of 5,652 persons were killed in pedestrian incidents, and a resultant 195,586 years of potential life were lost. White males had a YPLL rate of 120.7/100,000 population for pedestrian fatalities, and black males had a rate of

*Based on the International Classification of Diseases, 9th Revision, Supplementary Classification of External Causes of Injury and Poisoning.

TABLE 1. Deaths and years of potential life lost (YPLL) due to unintentional injuries before age 65 — United States, 1984

Cause of Mortality (ICD, 9th Revision)	Deaths	YPLL
Motor Vehicle, Traffic (E810-819)	39,228	1,387,534
Poisonings (E850-869)	4,244	130,632
Drowning (E910)	3,982	162,656
Falls (E880-888)	3,168	72,889
Fire and Flames (E890-899)	2,087	132,681
Firearms (E922)	1,538	58,579
Choking (E911-912)	1,354	38,342
Air Transport (E840-845)	1,187	32,151
Water Transport (E830-838)	1,027	32,641
Motor Vehicle, Nontraffic (E820-825)	901	35,978

Injuries – Continued

225.3/100,000. The rates for white and black females showed a similar difference. Although the age-specific fatality rate for pedestrians was high for children under age 5, it was highest for adults 15-29 years of age and for those over 50. Children under 10 contributed 26% of the YPLL due to pedestrian fatalities.

Reported by: Program Development and Implementation Br, Div of Injury Epidemiology and Control, Center for Environmental Health and Injury Control, CDC.

Editorial Note: Alcohol is the single most frequently found human factor in fatal crashes (*3,4*). A 1982 study of 46 motor vehicle crashes in Fulton County, Georgia, in which the drivers' blood alcohol concentrations (BACs) were measured showed that, in 39 (85%) of the crashes, at least one of the drivers involved was legally intoxicated. Drivers who had been drinking were involved in 42 (91%) of the crashes. Thirty-two (82%) of the legally intoxicated drivers were at least 25 years old, and 30 (77%) were male (*5*).

Deaths involving pedestrians represent the second largest category of motor vehicle deaths. Males account for 70% of pedestrian fatalities in all age groups. Two-thirds of all pedestrian deaths occur in urban areas. Alcohol plays a major role in adult pedestrian fatalities (*3,4*). Almost half of all fatally injured adult pedestrians have BACs ≥0.1%, and more than 50% of all fatally injured pedestrians in the 20- to 64-year age group have BACs ≥0.1%. For persons killed in motor vehicle crashes, the percentage of elevated BAC declines after age 40.

Reductions of motor vehicle occupant and pedestrian fatalities depend on a variety of interventions designed to alter the human and environmental factors affecting motor vehicle crashes. Interventions that could reduce human factors in motor vehicle crashes include public awareness and legal enforcement actions designed to deter alcohol use by drivers and pedestrians and special educational efforts directed toward these two groups. Studies of the cost-effectiveness of possible engineering changes, such as altering vehicle and highway design and constructing barriers to physically separate pedestrians and vehicles, may reveal some other important interventions.

References

1. Centers for Disease Control. Premature mortality due to unintentional injuries—United States, 1983. MMWR 1986;35:353-6.
2. Baker SP, O'Neill B, Karpf RS. The injury fact book. Lexington, Massachusetts: Lexington Books, 1984.
3. Waller JA. Injury control: a guide to the causes and prevention of trauma. Lexington, Massachusetts: Lexington Books, 1985:211.
4. Haddon W Jr, Valien P, McCarroll JR, Umberger CJ. A controlled investigation of the characteristics of adult pedestrians fatally injured by motor vehicles in Manhattan. J Chronic Dis 1961;14:655-78.
5. Centers for Disease Control. Alcohol and fatal injuries—Fulton County, Georgia, 1982. MMWR 1983;32:573-6.

Notice to Readers

Holiday Publication Schedule

The *MMWR* will not be published during Christmas week. The next issue will come out on January 1, 1988, and will include the tables on specified notifiable diseases and deaths in 121 U.S. cities for the weeks ending December 19 and December 26, 1987.

FIGURE I. Reported measlescases — United States, Weeks 45-48, 1987

The *Morbidity and Mortality Weekly Report* is prepared by the Centers for Disease Control, Atlanta, Georgia, and available on a paid subscription basis from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, (202) 783-3238.

The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday. The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

☆U.S. Government Printing Office: 1988-530-111/60048 Region IV

HHS Publication No. (CDC) 88-8017